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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,706	04/16/2004	Kevin J. Knopp	AHURA-1116	2188

7590

09/22/2005

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EXAMINER
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EVANS, FANNIE L

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/826,706

Applicant(s)

KNOPP ET AL.

Examiner

F. L. Evans

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15, 20 and 21 is/are allowed.
- 6) ☒ Claim(s) 16, 17 and 19 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on April 18, 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *The Drawings*

The drawings are objected to as being informal. Formal drawings are required in compliance with 37 CFR § 1.84 and 1.121(d).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 19 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 is inaccurate in that "second" in line 14 should be --first--. Correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis

Art Unit: 2877

for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16 and 17 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Malvin (US 3,449,654).

Malvin disclose a holder for a specimen of material the comprising: a vial (48) having a top member (49), a bottom member, and a wall member, wherein at least one portion of at least one of said top member, said bottom member, and said side member comprising a single crystalline material (quartz - lines 2 and 3 of column 3). The structure of claims 16 and 17 is disclosed by Malvin.

Claim 19 is rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Puppels (WO 02/101365 A1).

Puppels discloses a method of producing a Raman signature display, the method comprising the steps of: operating a laser source (10) to produce a laser beam; directing the laser beam through a light guide (70) from a first end thereof to a second end thereof and through a lens (71) associated with the light guide (70); directing the laser beam further onto a selected (72) specimen from which light projected thereonto is reflected back to the lens (71) associated with the light guide (70); passing the reflected light back through the light guide (70) from the second end thereof to the first end thereof ; dividing (15) the reflected light at the first end of the light guide into a Raman signature portion and a second portion comprising a remainder of the reflected light; directing the signature portion of the reflected light to an optical spectrum analyzer (14); and operating the analyzer to provide a signature display. Applicant's attention is directed to Puppels in its entirety with particular attention directed to FIGURES 1A, 1B, 7 and the text pertaining thereto.

*Allowable Subject Matter*

Claims 1-15, 20 and 21 are allowed over the prior art of record.

Art Unit: 2877

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to independent claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious a Raman spectroscopy system comprising a photonic crystal light guide for receiving the laser beam from the laser source and for directing the laser beam toward a specimen of selected material, in combination with the rest of the limitations of the claim.

As to dependent claim 18, the prior art of record, taken alone or in combination, fails to disclose or render obvious a holder for a specimen of material for which a Raman signature is to be generated, wherein the bottom member comprises the single crystalline material, the side member comprises amorphous glass, and said the side member by melted bottom member is joined to amorphous glass, in combination with the rest of the limitations of the claim.

As to independent claim 20, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for producing a Raman signature comprising the steps of placing a specimen for which a Raman signature is desired in a holder having at least one portion of one wall of a single crystalline material and directing the laser beam through the at least one portion of one wall of the holder and onto the specimen from which light projected thereonto is reflected back though the light guide means into an optical spectrum analyzer, in combination with the rest of the limitations of the claim.

As to independent claim 21, the prior art of record, taken alone or in combination, fails to disclose or render obvious a Raman spectroscopy optical probe assembly comprising a photonic crystal light guide for receiving a laser beam from a laser source and for directing the laser beam toward a specimen of selected material, in combination with the rest of the limitations of the claim.

***Fax/Telephone Numbers***


Any inquiry concerning this communication or earlier communications from the examiner should

Art Unit: 2877

be directed to the examiner whose telephone number is (571) 272-2414.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**F. L. EVANS**  
**PRIMARY EXAMINER**  
**ART UNIT 2877**

file  
September 18, 2005